

Resuming Sports After Knee Replacement



Total knee replacement is a successful procedure in the majority of patients with arthritis. It relieves pain and restores the function and alignment of the joint. If you are considering total knee replacement, you should discuss with your surgeon the possibility of participating in physical activities such as sports following surgery.

Older patients undergoing knee replacement surgery today are more active than in the past, and the surgery is being performed in younger, more active patients. Education and marketing material for patients often depict them enjoying a physically active life after surgery. These factors lead to the question: Can I resume my active lifestyle after knee replacement?

Total knee replacement involves a mechanical device, and the forces applied to the implant are much higher while playing sports than during regular daily activities. These forces could cause wear and tear on the implants. They could loosen, and osteolysis could occur where the bone wears away around the implant as parts of it break down.

Even though implant design and materials have improved over the last 40 years, and surgeons have a better understanding on how the knee replacement responds to the stresses imposed by athletic activities, **you should discuss these concerns with your surgeon.**

There has not been a major study answering how long knee replacements last in patients who are physically active in relation to those who live a more sedentary life. Surgeons traditionally make recommendations about participation in sports after surgery based on personal preference and “common sense.” **The American Association of Hip and Knee Surgeons** has these recommendations.

Know your body and have realistic expectations.

Having knee replacement surgery doesn't mean you can participate in strenuous sports that you didn't do before surgery. The sports you are likely to participate in after surgery are those you played prior to surgery.

Jason C. Ho, MD and co-authors studied 40 patients who underwent total knee replacement surgery. Seventy-five percent of patients participated in high-impact sports before surgery. Ninety-three percent of those patients were able to return to practicing these types of sports after surgery.

Your ability to return to playing sports will also be affected by your general health. Studies show that the healthier you are, the more likely you are to return to playing sports after surgery. Studies also show that if you participated in high-impact sports before surgery, you will be more likely to return to medium and low-impact sports after surgery.



Use common sense.

The greater the impact from playing sports has on your knee implants, the greater chance there may be of damage. You can make the analogy to the tires of your car – the more off-roading you do, the more your tires will wear out.

Stay active after knee replacement!

The beneficial effects of physical activity on your general health and wellbeing are undeniable. With athletic activity, expect better cardiovascular health, muscular strength, endurance, balance, coordination and personal satisfaction.

Which sports are OK?

Remember that physical activities and sports that your surgeon recommends should be performed in moderation. If in doubt, be cautious and protective of your knee replacement!

<i>Low-Impact Sports</i>	<i>Intermediate-Impact Sports</i>	<i>High-Impact Sports</i>
Members of The Knee Society recommend that if you’ve had total knee replacement, practicing low-impact activities and sports is fine.	Intermediate-impact sports are recommended if you have prior experience, but shouldn’t be taken up if you haven’t tried them before.	The majority of doctors do not recommend participating in high-impact sports if you’ve had knee replacement surgery. Remember that physical activities and sports that your surgeon recommends should be performed in moderation. If in doubt, be cautious and protective of your knee replacement!

Talk to your doctor

It’s important to set expectations with your surgeon prior to surgery to discuss what level of activity is best for you. Ask how long your knee replacement will last if you are very active. Talk about your activities and your involvement in sports. How long your implant tolerates your activities depends on the type of sport you do and how often you do it after surgery. Follow-up exams and x-rays of your knee replacement are necessary to make sure that it continues to function well for a long time.



References

1. Klein GR, Levine BR, Hozack WJ, Strauss EJ, D'Antonio JA, Macaulay W, DiCesare PE. Return to athletic activity after total hip arthroplasty. Consensus guidelines based on survey of the Hip Society and AAHKS. *J of Arthroplasty* 2007;22(2):171-175.
2. Ho JC, Stitzlein RN, Green CJ, Stoner T, Froimson MI. Return to sports activity following UKA and TKA. *J Knee Surg* 2016;29:254-259.
3. Bradbury N, Borton D, Spoo G, Cross MJ. Participation in sports after total knee replacement. *Am J Sports Med* 1998;26(4):530-535.
4. Healey WL, Iorio R, Lemos MJ. Athletic activity after total knee arthroplasty. *Clin Orthop* 2000;380:65-71.
5. Golant A, Christoforou DC, Slover JD, Zuckerman JD. Athletic participation after hip and knee arthroplasty. *Bull NYU Hosp Jt Dis.* 2010;68(2):76-83.
6. S. Jassim, Douglas SL, Haddad FS. Athletic activity after lower limb arthroplasty. *Bone Joint J* 2014;96-B:923-927.
7. Witjes S, Gouttebauge V, Kuijer PFM, van Geenen RCI, Poolman RW, Kerkhoffs GMM. Return to sports and physical activity after total and unicondylar knee arthroplasty: A systematic review and meta-analysis. *Sports Med* 2016;46:269-292.



Scan this with your phone to connect to more articles and videos on hip and knee care.

*This article has been written and peer reviewed by the AAHKS Patient and Public Relations Committee and the AAHKS Evidence Based Medicine Committee. Links to these pages or content used from the articles must be given proper citation to the American Association of Hip and Knee Surgeons.
Revised 2018*